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2018–124

Pascal Mues, Environmental Engineer
US EPA Region 9, WTR-2-3
NPDES Permits Office
75 Hawthorne Street
San Francisco, CA 94105

Re: Summary of Review Status for *Request for Water Quality Certification and Definition of Mixing Zones for the Joint Cannery Outfall*

Dear Mr. Mues:

AS-EPA continues a review of the substantial amount of technical material that comprises the file record for the subject request (herein "Mixing Zone Application" or "MZA"). As you are aware, the MZA is not a single, discrete, submission. Initial documents were received in April 2017 and AS-EPA has received additional technical materials incrementally and intermittently since. The most recent submission is an amendment to the MZA dated 19 June 2018. As each new item of information is received AS-EPA must incorporate new material into the review and potentially re-evaluate previous determinations.

Another significant factor in the course of AS-EPA review is the change in operational conditions for StarKist Samoa Co. (StarKist) and Samoa Tuna Processors, Inc. (STP). Recent on-site inspections of the STP facility by US EPA and AS-EPA corroborate anecdotal evidence from local workers and business services that most and perhaps all major production equipment was removed from the STP facility over the past year. Furthermore, StarKist recently signed a 10-year sub-lease agreement with STP for use of the STP facility for warehouse and freezer space. AS-EPA interprets these events as the permanent closure of STP as a production facility. Thus, the combined wastewater flows from StarKist and STP presented as the basis for the MZA can no longer be considered representative of discharge conditions. Fundamentally, the *Joint Cannery Outfall* can no longer be considered "*Joint*". This significant change in operational conditions for the American Samoa tuna processing industry further complicates AS-EPA review of the MZA.

AS-EPA evaluation of the MZA includes a review of the water quality data file record for Pago Pago Harbor. Findings indicate chronic degraded environmental conditions in the vicinity of the outfall diffuser and in the water column within and beyond permitted zones of mixing established

under the current NPDES permit. It is notable to AS-EPA that these conditions can be attributed almost solely to StarKist wastewater discharges over the past ~10 years. This is so because the predecessor of STP (Chicken of the Sea) closed permanently in 2009 and STP operated for only a short period (~Apr 2016 – July 2016) and has not operated since.

In the context of the foregoing, and as requested, following is a brief summary of preliminary determinations for three (3) wastewater treatment scenarios presented in the *Wastewater Treatment System Upgrade Proposal* for the StarKist facility received by AS-EPA 01 June 2018. Determinations are presented in order of least likely to most likely to be acceptable to AS-EPA.

Scenario #3: Re-apportioned Proposed Permit Limits

It is highly unlikely that AS-EPA will support this scenario. Re-apportionment of waste loads from the permanently closed STP facility to the StarKist facility is not consistent with Effluent Limitation Guidelines (ELGs) of the Clean Water Act. The fact that two operating canneries previously discharged a combined waste load to the receiving waters of Pago Pago Harbor does not set a statutory precedent that one cannery may discharge the previously combined total if the other cannery ceases production. Regulated discharge of wastes from industry is based on production activity. Historically, StarKist production rates are ~650 tons of fish per production day. STP (previously Chicken of the Sea) had production capacity of ~450 tons of fish per production day. Permitting of the combined effluent streams in the *Joint Cannery Outfall* was historically based on a combined production of ~1100 tons per production day, which accounts for the historical ~60:40 split of waste load between the neighboring canneries. Today, it is expected that StarKist cannot produce beyond the historical rate because the facility is space limited which is strongly supported in the file record for this facility. The legality of re-apportionment as proposed by StarKist will be unequivocally determined by AS-EPA.

Scenario #2: Proposed Permit Limits

It is unlikely that AS-EPA will support this scenario. Significant and chronic environmental degradation is evident for Pago Pago Harbor waters for the vicinity and beyond the outfall discharge point. The most reasonable conclusion is that this is attributable almost solely to discharge from StarKist over the past ~10 years. There has been minimal discharge from STP or Chicken of the Sea for the past ~10 years, and there is no other pollution source within the Harbor watershed that could be reasonably expected to cause the observed degraded conditions. The proposed permit limits presented in the MZA (two canneries combined) increase nitrogen pollution by ~85%, phosphorus pollution by ~13% and ammonia pollution by ~40%. These proposed permit limits are not consistent with the intent and purpose of the Clean Water Act and defy common sense given what the water quality data shows and in conjunction with poor treatment performance as shown in the DMR record. The final technical determination concluded by AS-EPA and submitted officially to US EPA as a response to the MZA will likely show that the proposed permit limits are not sufficiently protective or conservative. It must be noted that proposed limits would concomitantly increase Biochemical Oxygen Demand in the effluent stream because of reduced wastewater treatment removal efficiencies (higher limits, less treatment required) and the resultant increased discharge of organic wastes. Severely depressed dissolved

oxygen conditions are demonstrated for harbor water column within and beyond the vicinity of the outfall, and the proposed permit conditions are highly unlikely to improve this situation.

Scenario #1: Current Permit Limits

It is most likely that AS-EPA will support this scenario, with perhaps some narrow range of increase for nitrogen, phosphorus and ammonia. The range will depend mainly on professional judgement for degree of uncertainty in the data sets and hence level of confidence in making final determinations, confidence in MZA assumptions for sufficient conservativeness, and confidence in modelling of plume behavior. The *Wastewater Treatment System Upgrade Proposal* presents a *non sequitur* in paragraph 3.2. It does not follow that the current permits limits are overly conservative because proposed future permit limits are higher than what is in the current NPDES Permit. This would only be true if it were shown conclusively that the current permit limits are overly conservative and that the proposed future permit limits are adequately protective. Neither current nor proposed limits are shown conclusively to be thus. It is most likely that AS-EPA will promote a recovery period scenario for Pago Pago Harbor water quality for the next NPDES Permit period. This will entail permit limits at or not excessively beyond the current limits, a requirement for improved plume modelling that will include a modern-day current study and state-of-the-art modelling software, and an enhanced receiving water quality monitoring program. Through this scenario, Harbor water quality can be tracked for upwards or downwards trends, and an improved understanding of the relationship between StarKist discharge and Harbor water quality within and beyond zones of mixing may be determined. This scenario will provide a suitably conservative approach to the current NPDES permit renewal process, and will lead to greatly enhanced ability to further refine permit limits for future NPDES permits.

Please do not hesitate to contact my staff should you have any further questions.

Sincerely,

Ameko Pato, Director